KECKLEY

INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS

TYPE NO. 7 FLOAT VALVE

APPLICATION/SERVICE:

The NO. 7 internally piloted valves are recommended where tight closing is essential. The NO. 7 is most commonly used to maintain a water level in a tank by means of the attached float linkage. By reversing the linkage, the NO. 7 may be set to either open or close on level rise. These valves are best suited for clean liquids not injurious to iron, brass or neoprene.

MAXIMUM PRESSURE & TEMPERATURE LIMITS		
Pipe Size	**Pressure**	**Temperature**
½" and ¾"	130 $^{lb}/in^2$	Standard neoprene disc is recommended for temps up to 125°F. Optional Teflon disc is available for temps from 125°F to 350°F
1"	100 $^{lb}/in^2$	
1¼"	80 $^{lb}/in^2$	
1½"	65 $^{lb}/in^2$	
2"	50 $^{lb}/in^2$	

CONSTRUCTION FEATURES:

Valve sizes through 1½" are available only with threaded ends and an integral seat. These sizes are supplied standard with bronze body and trim. The 2" size is available in both threaded and flanged end connections with a replaceable seat. This 2" size is supplied standard with a cast iron body and bronze trim. Other materials are available (consult factory). All sizes of these valves are available in either a **Globe** (straight through) or **Angle** (side inlet-bottom discharge) configuration.

INSTALLATION:

Thoroughly clean dirt, slag, etc. from both the valve body and inlet pipe. Install the NO. 7 float valve near the water level you wish to maintain with the valve stem in a vertical position; rotate the swivel guide yoke so that the float rests in calm water. Turbulence in the tank should be avoided, as it will proportionally decrease the working life of any moving parts. If turbulence exists, it may be necessary to extend the piping down from the discharge side to a point well below the lowest level of water maintained. Stilling wells may also be used to dampen the effects of turbulence on the float. It is recommended that you install both a strainer and a shutoff valve on the inlet side of these valves. The strainer will keep debris from clogging the internal ports of these valves and the shutoff valve will allow for easy access to the valve should it need to be removed. The direction of flow through these valves should agree with the markings on the side of the valve body. These valves should be protected from freezing water both in the valve, and on the surface of the water.

START UP:

Open the upstream shut off valve gradually to permit the tank to fill slowly and to also allow time for the necessary adjustment of the float rod and linkage to obtain the desired maximum water level; then open the shut off valve completely. Precisely adjust the water level by changing the floats position.

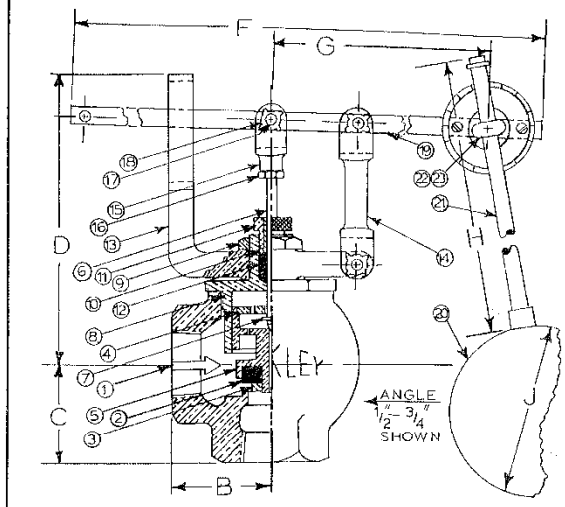
TROUBLES AND REMEDIES:

Problem: Valve does not close tightly.
Solution: 1. Check the inlet pressure gauge. Do not exceed the maximum allowable inlet pressure shown. 2. Disassemble valve and clean the seat and disc. Check for wear and replace the valve disc if needed. 3. Check that the maximum temperature for disc material is not exceeded.
Problem: Valve sticks or leaks at stem.
Solution: Stem packing may be too tight. Repack and tighten the gland only finger tight.
Problem: Valve closes suddenly or chatters.
Solution: 1. Check the size of the valve against the capacity (GPM) needed. **Do not use an oversized valve**. It is recommended that a valve have between 50% to 100% more capacity than the normal demand. 2. Weighting the float may slow the action.

MAINTENANCE:

The operation and condition of the valve should be checked at regular intervals.

AL-73049

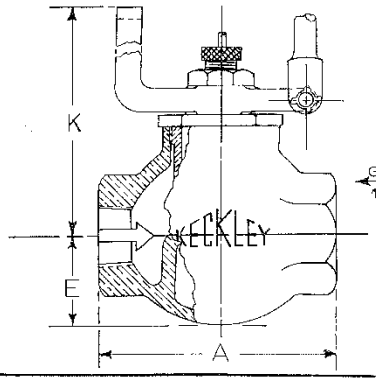


№	PART NAME	1/2" TO 3/4" QU.	1/2" TO 3/4" MAT'L	1" TO 1 1/2" QU.	1" TO 1 1/2" MAT'L
1	BODY	1	BRZ	1	BRZ
2	DISC	1	COMP	1	COMP
3	DISC NUT	1	BRS	1	BRS
4	LIFT NUT	1	BRS	--	---
5	INNER VALVE	1	BRZ	1	BRZ
6	STEM	1	SST	1	SST
7	STEM SNAPRING	1	SST	1	SST
8	BONNET	1	BRZ	1	BRZ
9	YOKE LOCKNUT	1	BRZ	1	BRZ
10	PACKING GLAND	1	BRS	1	BRS
11	PACKING NUT	1	BRS	1	BRS
12	PACKING	AR	COMP	AR	COMP

№	PART NAME	1/2" TO 3/4" QU.	1/2" TO 3/4" MAT'L	1" TO 1 1/2" QU.	1" TO 1 1/2" MAT'L
13	GUIDE YOKE	1	BRZ	1	BRZ
14	GUIDE ARM	1	BRZ	1	BRZ
15	CLEVIS	1	BRZ	1	BRZ
16	CLEVIS LOCKNUT	1	BRS	1	BRS
17	PIVOT PINS	3	BRS	3	BRS
18	PIVOT PIN RETNR	3	STL	3	STL
19	LEVER ASSEM	1	STL	1	STL
20	FLOAT	1	SS 304	1	SS 304
21	FLOAT ROD	1	BRS	1	BRS
22	ROD RETAINER	1	STL	1	STL
23	RETAINER NUT	1	STL	1	STL

DIMENSIONS

SIZE	A	B	C	D	E	F	G	H	J	K
1/2"-3/4"	4 1/4	2	2	6 5/16	1 9/16	22	13 11/16	16	7	6 15/16
1"	5	2 1/16	2 1/16	6 5/8	1 7/8	22	13 11/16	16	7	7 3/8
1 1/4"	5 1/8	2 1/8	2 1/8	6 5/8	1 15/16	22	13 11/16	16	7	7 9/16
1 1/2"	5 1/4	2 1/2	2 1/2	6 7/8	2 1/8	22	13 11/16	16	7	7 13/16

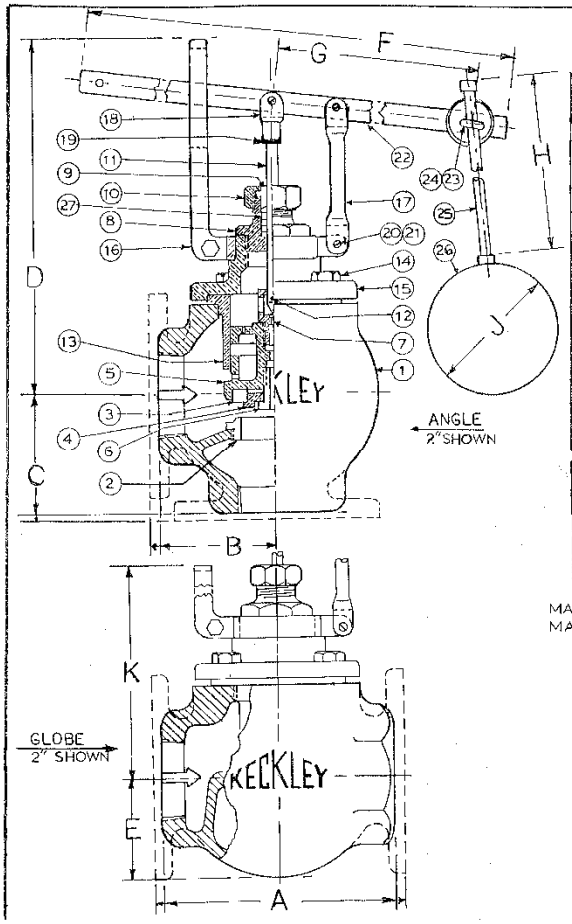


INLET PRESSURES	
SIZE	MAX.
1/2"	130
3/4"	130
1"	100
1-1/4"	80
1-1/2"	65

REV. 5-17-94

O.C. KECKLEY COMPANY SKOKIE ILLINOIS	AL-73049
DIMENSIONAL ASSEMBLY 1/2"-1-1/2" *7 FLOAT VALVES	SCALE: ~ DATE: 6-2-82 DR.BY: S

AL-65032



№	PART NAME	2" QU.	2" MAT'L
1	BODY	1	C.I.
2	SEAT	1	BRZ
3	DISC	1	COMP
4	DISC PLATE	1	BRZ
5	INNER VALVE	1	BRZ.
6	DISC SCREW	1	BR'S
7	PORT STUD	1	BRZ.
8	BONNET	1	BRZ
9	GLAND	1	BRS
10	PACK'G NUT	1	BRZ
11	STEM	1	S.S.
12	LIFT PIN	1	S.S.
13	CYLINDER	1	BRZ
14	HEX CAP SCR.	4	STL

№	PART NAME	2" QU	2" MAT'L
15	TOP CAP	1	C.I.
16	YOKE	1	BRZ.
17	ARM	1	BRZ.
18	CLEVIS	1	BRZ.
19	CL. LOCK WASH.	1	STL
20	PIVOT SCR'S	3	STL.
21	PIVOT NUTS	3	BRS
22	LEVER	1	ST'L.
23	RETAINER	1	ST'L.
24	RETAIN'R NUT	1	ST'L.
25	FLOAT ROD	1	BRS
26	FLOAT	1	S.S304
27	PACKING	AR.	TFL.

DIMENSIONS

SIZE	A SCR	A FLG# 125	B SCR	B FLG# 125	C SCR	C FLG# 125	D	E	F	G	H	J	K
2"	7 5/8	8 1/4	3 7/16	4 1/8	3 7/16	4 1/8	10 1/16	2 7/8	29	17 3/8	16	7	11 1/4

MAXIMUM OPERATING PRESSURE: 50*
MAXIMUM TEMPERATURE WITH STD. VALVE DISC: 125°F
HIGHER TEMPERATURE DISC AVAILABLE

O.C. KECKLEY COMPANY SKOKIE ILLINOIS	AL-65032
DIMENSIONAL ASSEMBLY 2" * 7 FLOAT VALVES	SCALE ~ DATE 8-21-81 DR BY

KECKLEY

INSTALLATION OPERATING AND MAINTENANCE INSTRUCTIONS

TYPE #77 FLOAT VALVE

APPLICATION:

The No.77 internally piloted valves are recommended where tight closing is essential. Each of these valves is available in either a **GLOBE** (straight through) or **Angle** (bottom inlet-side discharge) configuration. The No.77 is most commonly used to maintain a water level in a tank by means of the attached float linkage. These valves are best suited for clean liquids not injurious to neoprene, leather or brass.

PRESSURE AND TEMPERATURE LIMITS:

MAXIMUM PRESSURE & TEMPERATURE RATING		
Body Type	Pressure	Temperature
Cast Iron or Bronze (NPT)	250 $^{\#}/_{in^2}$	125 ° F
Cast Iron (Std. Flange)	200 $^{\#}/_{in^2}$	125 ° F
Cast Iron (Ex. Heavy Flange)	250 $^{\#}/_{in^2}$	125 ° F

*optional high temperature teflon valve disc and cup are available for temperatures up to 350°F.
Note: Absolute minimum inlet pressure is 5 PSI on sizes from 2" to 6", and 10 PSI on 8" and 10"

INSTALLATION:

Thoroughly clean dirt, slag, etc. from both the valve body and inlet pipe. Install the No.77 float valve near the water level you wish to maintain with the valve stem in a vertical position; rotate the swivel guide yoke so that the float rests in calm water. Turbulence in the tank should be avoided as it will proportionally decrease the working life of any moving parts. If turbulence exists, it may be necessary to extend the piping down from the discharge side to appoint well below the lowest level of water maintained. Stilling wells may also be used to dampen the effects of turbulence on the float. It is recommended that you install both a strainer and a shut-off valve on the inlet side of these valves. The strainer will keep debris from clogging the internal ports of these valves and the shut-off valve will allow for easy access to the valve should it need to be removed. The direction of flow through these valves should agree with the markings on the side of the valve body. These valves should be protected from freezing water both in the valve and on the surface of the water.

START-UP:

Open the upstream shut-off valve gradually to permit the tank to fill slowly and to also allow time for the necessary adjustment of the float rod and linkage to obtain the desired maximum water level; then open the shut-off valve completely. Precisely adjust the water level by changing the floats position.

TROUBLES AND REMEDIES:

Problem: Valve does not close tightly
Solution: *1. Check and make sure that the minimum inlet pressure is met. 2. Disassemble valve and clean all inside surfaces including the disc and leather cup. Check for wear (replace worn parts as necessary). 3. Check that the maximum temperature for disc material is not exceeded.*
Problem: Valve sticks or leaks at stem
Solution: *Stem packing may be too tight. Repack and tighten the gland only finger tight.*
Problem: Valve closes suddenly or chatters
Solution: *1. Check the size of the valve against the capacity (GPM)needed. Do not use an oversized valve. It is recommended that a valve have only between 50% to 100% more capacity than the normal demand. 2. Weighting the float may slow the action.*

Maintenance:

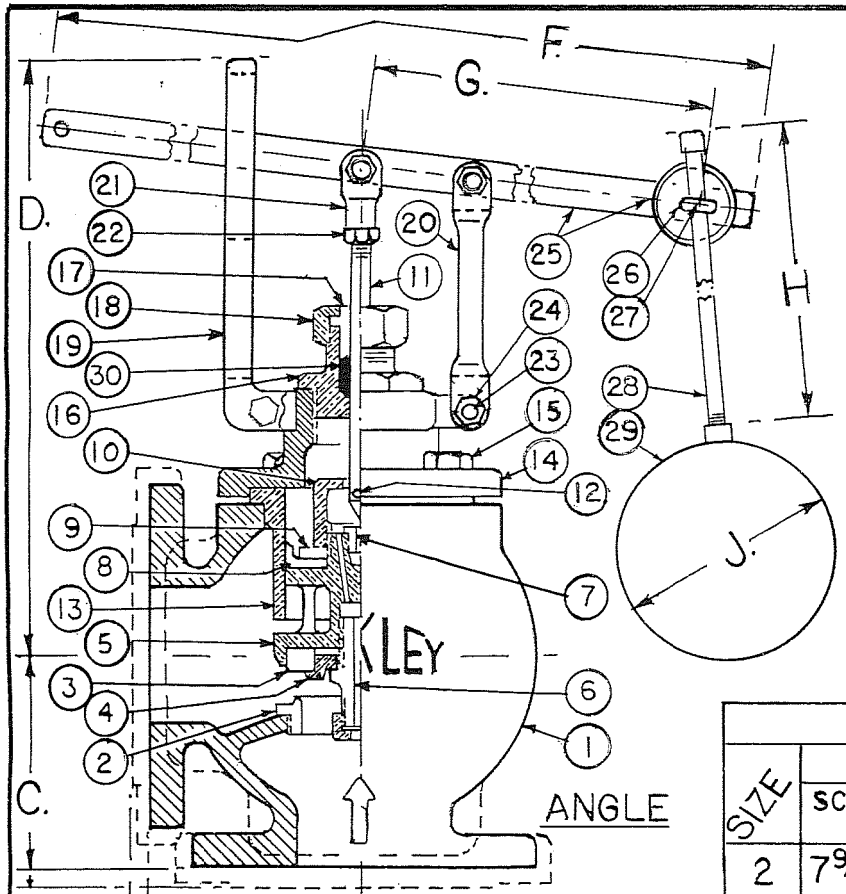
The operation and condition of the valve should be checked at regular intervals.

AL65031

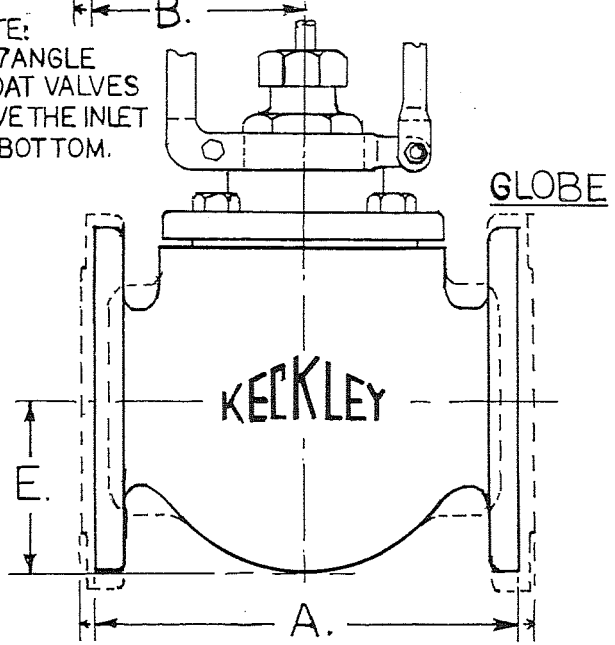
NOTES: * DENOTES ON 5" TO 10" ONLY.
** DENOTES ON 5" TO 10" MAT'L IS BRS.
*** DENOTES ON 5" TO 10" MAT'L IS IRON.

Nº	PART NAME	QU.	MAT'L
1	BODY	1	C.I.
2	SEAT	1	BRZ
3	DISC	1	COMP.
4	DISC PLATE	1	BRZ
5	INNER VALVE	1	BRZ
6	DISC PLT. SCR. AS'BLY	1	BRS
7	PORT STUD	1	S.S
8	LEATHER CUP	1	LTHR
9	LTHR CUP PLATE *	1	BRZ
10	LTHR CUP LOCKNUT	1	BRZ
11	STEM	1	S S
12	ROLL PIN	1	S S
13	CYLINDER	1	BRZ
14	TOP CAP	1	C.I.
15	HEX H'D CAP SCR'S	A.R.	ST'L

Nº	PART NAME	QU.	MAT'L
16	BONNET	1	BRZ
17	GLAND	1	BRS
18	PACKING NUT	1	BRZ
19	GUIDE YOKE W/SCR.	1	BRZ
20	GUIDE ARM	1	BRZ
21	CLEVIS	1	BRZ
22	CLEVIS LOCKNUT	1	BRS
23	PIVOT SCREWS	3	STL
24	PIVOT SCR. NUTS	3	BRS
25	LEVER W. ROSETTE	1	ST'L
26	RETAINER	1	STL **
27	RET'R-NUT	1	BRS
28	FLOAT ROD	1	BRS ***
29	FLOAT	1	STL.C.PL'D
30	PACKING	A.R.	TFL.



NOTE:
*77 ANGLE FLOAT VALVES HAVE THE INLET AT BOTTOM.



DIMENSIONS.

SIZE	A			B			C			D	E	F	G	H	J
	SCR	FLG# 125#	FLG# 250#	SCR	FLG# 125#	FLG# 250#	SCR	FLG# 125#	FLG# 250#						
2	7 9/16	8 1/4	8 3/4	3 7/16	4 1/8	4 3/8	3 7/16	4 1/8	4 3/8	10 1/8	3	29	17 3/8	16	7
2 1/2	8 3/4	9 1/2	10 1/8	3 15/16	4 3/4	5 1/16	3 15/16	4 3/4	5 1/16	10 1/2	3 3/8	29	17 3/8	18	8
3	9 3/4	10 1/2	11 1/4	4 1/2	5 1/4	5 5/8	4 1/2	5 1/4	5 5/8	10 7/8	3 7/8	29	17 3/8	18	8
4	—	12 1/4	12 7/8	—	6 1/8	6 7/16	—	6 1/8	6 7/16	11 3/8	4 3/4	29	17 3/8	18	8
5	—	14 1/2	15 3/8	—	7 1/4	7 11/16	—	7 1/4	7 11/16	14 1/4	5 15/16	33 3/8	20 1/2	24	10
6	—	16 1/4	17 1/8	—	8 1/8	8 9/16	—	8 1/8	8 9/16	15 1/2	6 15/16	33 3/8	20 1/2	24	10
8	—	19 1/8	20 1/8	—	9 1/8	9 5/8	—	9 1/8	9 5/8	20 3/4	8 1/4	41	28	30	10
10	—	20 1/8	21 1/2	—	—	—	—	—	—	35	9 1/2	60	41	30	12

INLET PRESSURE.

SIZE	MAX.	SIZE	MAX.
2"	250	5"	250
2 1/2"	250	6"	250
3"	250	8"	250
4"	250	10"	250

NOTE: ABSOLUTE MINIMUM INLET PRESSURE IS 5# ON 2" TO 6" AND 10# ON 8" TO 10"

O.C. KECKLEY COMPANY
SKOKIE ILLINOIS

DIMENSIONAL ASSEMBLY
2" — 10" *77 FLOAT VALVES.

DRAWING Nº AL-65031
REV. 5-17-94
DATE 12-16-80
DR. BY

KECKLEY

INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS

TYPE NO. 27 FLOAT VALVE & NO. 62 LEVER VALVE

APPLICATION/SERVICE:

The NO. 27 and NO. 62 double seated valves are recommended for continuous service applications where a tight closing is **not** essential. The NO. 27 is most commonly used to maintain a water level in a tank by means of the attached float linkage. The NO.62 lever valve is designed to control the flow of liquid by an external power source. By reversing the linkage, both the NO. 27 and NO. 62 may be set to either open or close on level rise.

MAXIMUM PRESSURE & TEMPERATURE LIMITS			
Pipe Size	**Pressure**	**Pipe Size**	**Pressure**
$^1/_2$" to 1"	150 $^{\#}/in^2$	4"	35 $^{\#}/in^2$
$1^1/_4$"	120 $^{\#}/in^2$	5"	30 $^{\#}/in^2$
$1^1/_2$"	100 $^{\#}/in^2$	6"	25 $^{\#}/in^2$
2"	75 $^{\#}/in^2$	8"	20 $^{\#}/in^2$
$2\text{-}^1/_2$"	60 $^{\#}/in^2$	10"	15 $^{\#}/in^2$
3"	50 $^{\#}/in^2$	12"	12 $^{\#}/in^2$

Maximum Temperature is 406^{o}F for all sizes

CONSTRUCTION FEATURES:

In sizes 1½" and smaller these valves have bronze bodies with integral seats are available with threaded ends only. In sizes 2" and larger, the standard bodies are cast iron with removable bronze seats. Threaded connections are available in sizes up to 3" and flanged connections are available in sizes 2" and larger. Other materials are available (consult factory). All sizes of these valves are available in either a **Globe** (straight through) or **Angle** (side inlet-bottom discharge) configuration.

INSTALLATION:

Thoroughly clean dirt, slag, etc. from both the valve body and inlet pipe. Install the NO. 27 float valve near the water level you wish to maintain with the valve stem in a vertical position; rotate the swivel guide yoke so that the float rests in calm water. Turbulence in the tank should be avoided, as it will proportionally decrease the working life of any moving parts. If turbulence exists, it may be necessary to extend the piping down from the discharge side to a point well below the lowest level of water maintained. Stilling wells may also be used to dampen the effects of turbulence on the float. Install the NO. 62 lever valve wherever desired and arrange it to be operated by the NO. 20 float box, NO. 20M float mechanism, by hand or by another suitable means. It is recommended that you install both a strainer and a shut-off valve on the inlet side of these valves. The strainer will keep debris from clogging these valves and the shutoff valve will allow for easy access to the valve should it need to be removed. The direction of flow through these valves should agree with the markings on the side of the valve body. These valves should be protected from freezing water both in the valve, and on the surface of the water.

START UP:

Open the upstream shut off valve gradually to permit the tank to fill slowly and to also allow time for the necessary adjustment of the float rod and linkage to obtain the desired maximum water level; then open the shut off valve completely. Precisely adjust the water level by changing the floats position.

TROUBLES AND REMEDIES:

Problem: Valve leaks more than allowable.
Solution: 1. Check the inlet pressure gauge. Do not exceed the maximum allowable inlet pressure shown. 2. Disassemble valve and clean the seating surfaces. Check for wear and replace components as needed.
Problem: Valve sticks or leaks at stem.
Solution: Stem packing may be too tight. Repack and tighten the gland only finger tight.
Problem: Valve closes suddenly or chatters.
Solution: 1. Check the size of the valve against the capacity (GPM) needed. **Do not use an oversized valve**. It is recommended that a valve have between 50% to 100% more capacity than the normal demand. 2. Weighting the float may slow the action.

MAINTENANCE:

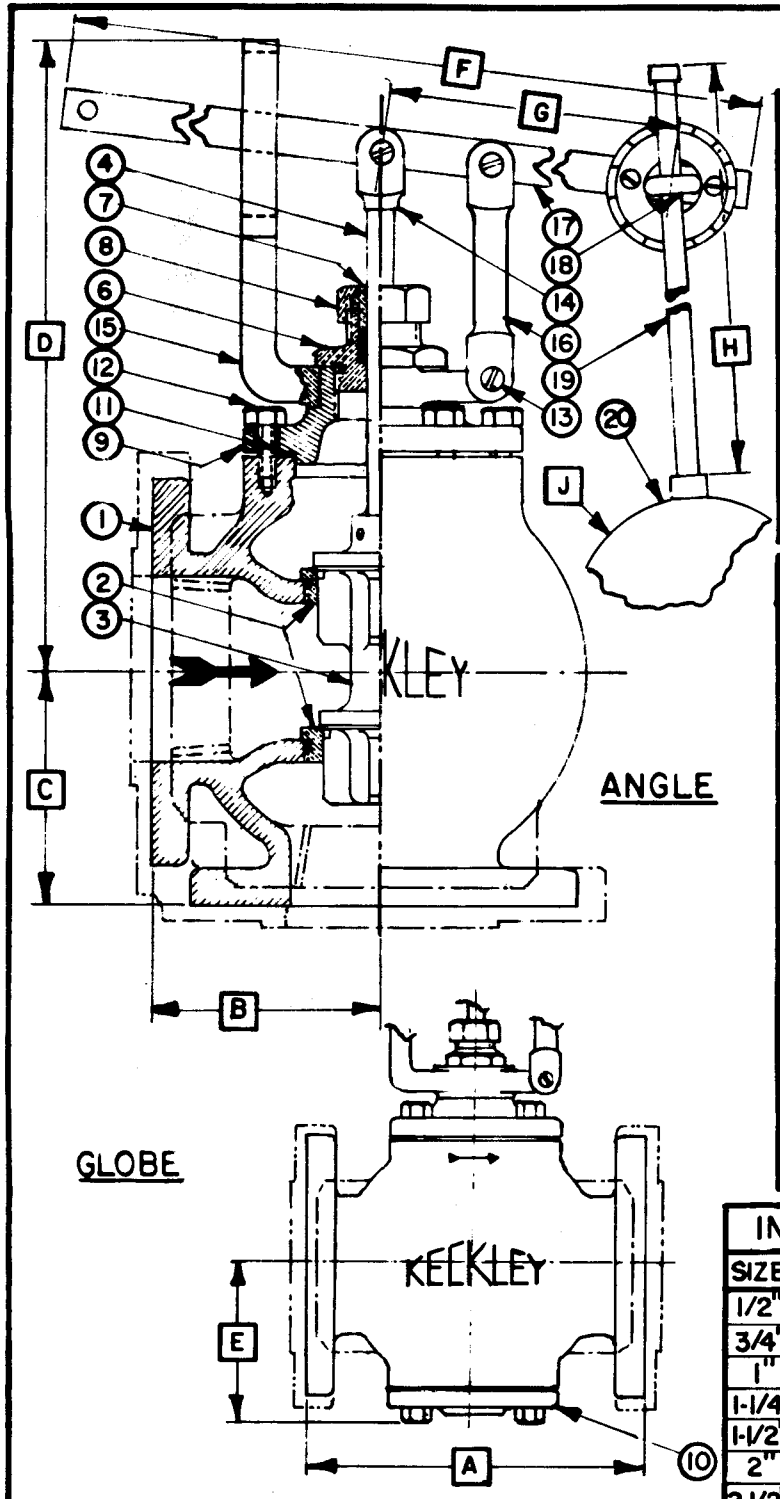
The operation and condition of the valve should be checked at regular intervals.

NOTES: * DENOTES SEATS INTEGRAL WITH BODY.
** DENOTES ON 2 1/2"&4"-8"GLOBE ONLY.
*** DENOTES NOT USED ON 1/2" TO 1-1/2".

AL 65012
DRAWING NO.

NO.	PART NAME	1/2" TO 1-1/2" QU.	1/2" TO 1-1/2" MAT'L	2" TO 12" QU.	2" TO 12" MAT'L
1	BODY	1	BRZ.	1	C.I.
2	SEATS	—	*	2	BRZ.
3	MAIN VALVE	1	BRZ.	1	BRZ.
4	STEM	1	BRS.	1	BRS.
5		—	***	1	
6	PACK'G BOX	—	***	1	BRZ.
7	GLAND	1	BRS.	1	BRS.
8	PACK'G NUT	1	BRS.	1	BRZ.
9	TOP CAP	1	BRZ.	1	C.I.
10	BOTTOM CAP	—	***	—	**

NO.	PART NAME	1/2" TO 1-1/2" QU.	1/2" TO 1-1/2" MAT'L	2" TO 12" QU.	2" TO 12" MAT'L
11	GASKET	—	***	1	[illegible]
12	CAP SCREWS	—	***	AR	STL.
13	PIVOT SCR'S	3	STL.	3	STL.
14	CLEVIS	1	BRZ.	1	BRZ.
15	GUIDE YOKE	1	BRZ.	1	BRZ.
16	GUIDE ARM	1	BRZ.	1	BRZ.
17	LEVER	1	STL.	1	STL.
18	RETAINER	1	STL.	1	STL.
19	FLOAT ROD	1	BRS.	1	BRS.
20	FLOAT	1 - 7-8" DIA. 304 S.S.			
		1-10-12" DIA. C.P. STL			



DIMENSIONS

SIZE	A SCR.	A FLG. 125#	A FLG. 250#	B SCR.	B FLG. 125#	B FLG. 250#	C SCR.	C FLG. 125#	C FLG. 250#	D	E	F	G	H	J
1/2 & 3/4	4 1/8	—	—	2	—	—	2	—	—	6 1/8	1 1/2	22	13 11/16	16	7
1	4 3/8	—	—	2 1/8	—	—	2 1/8	—	—	6 5/16	1 5/8	22	13 11/16	16	7
1-1/4	4 1/2	—	—	2 1/4	—	—	2 1/4	—	—	6 7/16	1 3/4	22	13 11/16	16	7
1-1/2	4 1/2	—	—	2 1/4	—	—	2 1/4	—	—	6 3/4	1 3/4	22	13 11/16	16	7
2	6 1/4	6 1/2	7	3 1/4	3 1/4	3 1/2	4 1/4	4 1/4	4 1/2	10 1/2	2 7/8	29	17 3/8	16	7
2-1/2	7 5/8	8 3/16	8 13/16	3 15/16	4 1/16	4 3/8	5 1/4	5 7/16	6 3/16	11 1/4	4 1/16	29	17 3/8	18	8
3	9 1/4	9 1/4	10	4 5/8	4 5/8	5	5 3/4	5 3/4	6 1/8	11 7/16	5 1/8	29	17 3/8	18	8
4	—	10 1/4	11 3/8	—	5 3/16	5 11/16	—	6 15/16	7 1/4	12 1/4	5 13/16	29	17 3/8	18	8
5	—	12	12 7/8	—	6 3/8	7 1/16	—	6 5/8	7 1/16	15 1/8	6 3/16	33 3/8	20 1/2	24	10
6	—	13	13 7/8	—	6 1/2	6 15/16	—	8 7/16	8 7/8	16	7 1/8	33 3/8	20 1/2	24	10
8	—	16 3/4	17 3/4	—	8 3/8	8 7/8	—	8 3/8	8 7/8	21 1/8	8 1/8	41	28	30	10
10	—	20 1/4	21 5/8	—	10 1/4	10 15/16	—	10 1/4	10 15/16	22 13/16	9 1/16	60	41	30	12
12	—	22 5/8	24 1/8	—	11 7/8	12 5/8	—	11 7/8	12 5/8	24 3/16	11 3/8	60	41	30	12

INLET PRESSURES

SIZE	MAXIMUM	SIZE	MAXIMUM
1/2"	150	3"	50
3/4"	150	4"	35
1"	150	5"	30
1-1/4"	120	6"	25
1-1/2"	100	8"	20
2"	75	10"	15
2-1/2"	60	12"	12

O. C. KECKLEY COMPANY

DIMENSIONAL ASSEMBLY

1/2"–12" #27 FLOAT VALVES

MAT'L: —

REV. 5-17-94

DRAWING NO. AL 65012

PART NO. —

SCALE: —

DATE: 3-25-65

DR. BY: JM